

# इंटरनेट

# मानक

## Disclosure to Promote the Right To Information

Whereas the Parliament of India has set out to provide a practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority, and whereas the attached publication of the Bureau of Indian Standards is of particular interest to the public, particularly disadvantaged communities and those engaged in the pursuit of education and knowledge, the attached public safety standard is made available to promote the timely dissemination of this information in an accurate manner to the public.

“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 3769 (1993): Textiles - Pugree cloth, cotton  
khadi, bleached or dyed [TXD 8: Handloom and Khadi]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”



BLANK PAGE



IS 3769 : 1993

भारतीय मानक

REAFFIRMED

बस्त्रादि — पगड़ी के लिए सूती खादी का विरंजित या रंगीन  
कपड़ा — विशिष्ट

( पहला पुनरीक्षण )

*Indian Standard*

TEXTILES — PUGREE CLOTH, COTTON KHADI,  
BLEACHED OR DYED — SPECIFICATION

( *First Revision* )

UDC 677.21.074.162.3 PUG

© BIS 1993.

BUREAU OF INDIAN STANDARDS  
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG  
NEW DELHI 110002

December 1993

Price Group 2

## FOREWORD

This Indian Standard ( First Revision ) was adopted by the Bureau of Indian Standards, after the draft finalized by the Handloom and Khadi Sectional Committee had been approved by the Textile Division Council.

This standard was first published in 1966. This standard has been revised to overcome certain difficulties encountered by the khadi industry in implementation of this standard.

Following are the important changes carried out while revising this standard:

- a) Tolerances on length and width as notified by the Government of India under *Trade and Merchandise Marks Act*, 1958 ( 43 of 1958 ) have been adopted.
- b) For checking the conformity of the cloth to the requirements laid down in the standard, a provision has been made for testing of the samples in prevailing atmospheric conditions. However, in case of dispute, the samples shall be tested after conditioning in the standard atmospheric conditions.
- c) The standard provides for agreement between the buyer and the seller with respect to permissible number of defects in the fabric.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values ( revised )'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

**AMENDMENT NO. 1 MARCH 2002  
TO  
IS 3769 : 1993 TEXTILES — PUGREE CLOTH,  
COTTON KHADI, BLEACHED OR DYED —  
SPECIFICATION**

**( First Revision )**

*( Page 1, Table 1, col 4 and 5, Tolerance, percent on 'Picks/dm' and 'Mass g/m<sup>2</sup>' ) — Substitute '±10' for '±5' at both the places.*

**( TX 08 )**

---

**Reprography Unit, BIS, New Delhi, India**

## Indian Standard

# TEXTILES — PUGREE CLOTH, COTTON KHADI, BLEACHED OR DYED — SPECIFICATION

( First Revision )

### 1 SCOPE

**1.1** This standard prescribes constructional particulars and other requirements of pugree cloth, cotton khadi, bleached or dyed.

**1.2** This standard does not specify the general appearance, feel, shade, etc, of the cloth.

### 2 REFERENCES

The Indian Standards listed at Annex A are necessary adjuncts to this standard.

### 3 ATMOSPHERIC CONDITIONS FOR TESTING

Test specimens may be conditioned and tested in the prevailing atmospheric conditions for checking the conformity of the cloth to the standard. However, in case of dispute, the specimens shall be conditioned and tested in the standard atmosphere as specified in the referred Indian Standards on test methods.

### 4 GENERAL REQUIREMENTS

#### 4.1 Yarn

The yarn used in the manufacture of cloth shall be hand spun from clean carded cotton. It shall

be reasonably even and free from leaf particles, slubs, neps and other spinning defects. The approximate count of warp and weft yarn is given in Table 1.

#### 4.2 Cloth

**4.2.1** The selvages shall be firm and well woven.

**4.2.2** The cloth shall be either in bleached condition or dyed as agreed to between the buyer and the seller.

**4.2.3** The cloth shall be free from blueing, dressing and filling materials and substances liable to cause subsequent tendering.

**4.2.4** The cloth, when visually examined, shall be reasonably free from spinning, weaving and processing defects.

### 5 REQUIREMENTS

**5.1** Constructional particulars and breaking load of the cloth shall conform to the requirements specified in Table 1.

**5.2** The cloth shall also conform to other requirements specified in Table 2.

**Table 1 Constructional Particulars and Breaking Load Requirements for Pugree Cloth,  
Cotton Khadi, Bleached or Dyed**  
( *Clauses 4.1 and 5.1* )

Count of Yarn ( for Guidance only ) Universal Count ( Cotton Count )		Ends/dm	Picks/dm	Mass g/m <sup>2</sup>	Breaking Load ( on 10.0 × 20 cm Strips ), N	
Warp (1)	Weft (2)				Warp (6)	Weft (7)
33 tex ( 18s )	33 tex ( 18s )	158	158	110	334	294
Tolerance, percent	—	± 5	± 5	± 5	— 10	— 10
( ← ——— see Note ——— → )						
Method of Test	—	IS 1963 : 1981		IS 1964 : 1970 or Annex D	IS 1969 : 1985	

NOTE — Any increase in values of ends/dm, picks/dm or mass ( g/m<sup>2</sup> ) beyond positive tolerance shall not be a cause of rejection of the fabric.

**Table 2 Other Requirements for Pugree Cloth,  
Cotton Khadi, Bleached or Dyed**  
( Clause 5.2 )

Characteristics (1)	Require- ments (2)	Method of Test (3)
i) Dimensional change, percent, <i>Max</i>	5	IS 2977 : 1989
ii) Scouring loss, percent, <i>Max</i>	2.5	IS 1383 : 1977
iii) pH value of the aqueous extract	6.0 to 8.5	IS 1390 : 1983 ( Cold method )
iv) Colour fastness ( for dyed cloth only )		
a) Light	5 or better	IS 2454 : 1985
b) Washing : Test 3		IS 764 : 1979
1) Change in colour	4 or better	
2) Staining of adjacent fabric	4 or better	

**5.3** The cloth shall be woven in plain weave.

#### 5.4 Dimensions

Length and width of the cloth when determined in accordance with IS 1954 : 1990 shall be as agreed to between the buyer and the seller or as declared by the seller subject to the tolerances notified by the Government of India, Ministry of Commerce and Industry vide Notification No. S.O. 2937 dated 20 September 1962 issued under *Trade and Merchandise Marks Act, 1958* ( 43 of 1958 ) ( see Annex B ).

#### 5.5 Sealed Sample

In order to illustrate or specify the indeterminate characteristics, such as general appearance, lustre, feel and shade, a sample has been agreed upon and sealed, the supply shall be in conformity with the sample in such respects.

**5.5.1** The custody of the sealed sample shall be a matter of prior agreement between the buyer and the seller.

### 6 INSPECTION

**6.1** The cloth when visually inspected shall be free from the major flaws given in Annex C. However, permissible number of major flaws per unit length may be as agreed to between the buyer and the seller.

**6.2** For details of the flaws mentioned in 6.1, a reference may be made to IS 4125 : 1987.

### 7 MARKING

**7.1** The cloth shall be suitably marked with the following information:

- Name of the material for example, pugree cloth, cotton khadi;
- Length ( m ) and width ( cm ); and
- Indication of the source of manufacture.

**7.1.1** The cloth may also be marked with the Standard Mark.

### 8 PACKING

**8.1** Unless otherwise agreed upon by the buyer and the seller, the cloth shall preferably be packed in bales or cases in conformity with the procedure laid down in IS 1347 : 1972 or IS 293 : 1980.

### 9 SAMPLING

#### 9.1 Lot

The quantity of the cloth delivered to buyer against one despatch note shall constitute a lot.

**9.2** The conformity of the lot to the various requirements specified in the standard shall be determined on the basis of tests carried out on the samples selected from the lot.

**9.3** Unless otherwise agreed, the number of pieces selected at random for inspection shall be in accordance with Table 3.

**Table 3 Sample Size and Permissible Number of Non-conforming Pieces**

Lot Size (1)	Sample Size (2)	Permissible Number of Non-conforming Pieces (3)	Sub-sample Size (4)
Up to 25	3	0	2
26 to 50	5	0	2
51 to 150	8	0	3
151 to 300	13	1	3
301 to 500	20	1	5
501 to 1 000	32	2	5
1 001 and above	50	3	8

**9.3.1** For selection of samples at random from the lot, procedure given in IS 4905 : 1968 may be followed.



**9.4 Number of Samples and Criteria for Conformity**

It shall be as follows:

<i>Characteristics</i>	<i>Number of Samples</i>	<i>Criteria for Conformity</i>
Ends, picks, mass, length, width and visual inspection	According to col 2 of Table 3	Number of non-conforming pieces shall not exceed the corresponding number given in col 3
Dimensional change, scouring loss, pH value, colour fastness and breaking load	According to col 4 of Table 3	All the test pieces shall meet the requirement

**ANNEX A**

( Clause 2 )

**LIST OF REFERRED INDIAN STANDARDS**

<i>IS No.</i>	<i>Title</i>	<i>IS No.</i>	<i>Title</i>
293 : 1980	Code for seaworthy packaging of cotton yarn and cloth ( <i>third revision</i> )	1963 : 1981	Methods for determination of threads per unit length in woven fabrics ( <i>second revision</i> )
764 : 1979	Method for determination of colour fastness of textile materials to washing : Test 3 ( <i>second revision</i> )	1964 : 1970	Methods for determination of weight per square metre and weight per linear metre of fabrics ( <i>first revision</i> )
1347 : 1972	Inland packaging of cotton cloth and yarn ( <i>first revision</i> )	1969 : 1985	Methods for determination of breaking load and elongation of woven textile fabrics ( <i>second revision</i> )
1383 : 1977	Methods for determination of scouring loss in grey and finished cotton textile materials ( <i>first revision</i> )	2454 : 1985	Methods for determination of colour fastness of textile materials to artificial light ( Xenon lamp ) ( <i>first revision</i> )
1390 : 1983	Methods for determination of pH value of aqueous extracts of textile materials ( <i>first revision</i> )	2977 : 1989	Fabrics ( other than wool ) — Method for determination of dimensional changes on soaking in water ( <i>first revision</i> )
1954 : 1990	Methods for determination of length and width of fabrics ( <i>second revision</i> )	4125 : 1987	Glossary of terms pertaining to defects in fabrics ( <i>first revision</i> )
		4905 : 1968	Methods for random sampling

**ANNEX B**

( Clause 5.4 )

**EXTRACTS FROM THE GOVERNMENT OF INDIA, MINISTRY OF COMMERCE AND INDUSTRY ( TRADE AND MERCHANDISE MARKS ) NOTIFICATION NO. S.O. 2937, DATED 20 SEPTEMBER, 1962**

- 1 A trade description of length stamped on grey, bleached, mercerised or coloured cotton piece goods:
  - (i) in pieces stamped as of length 9 metres and below, the stamped length shall not exceed the actual length by more than 1 percent of the piece length or 7.5 cm, whichever is less, and;
  - (ii) in pieces stamped as of length above 9 metres, the stamped length shall not exceed the actual length by more than 0.6 percent of the piece length or 7.5 cm, whichever is higher.
- 2 A trade description of width stamped on grey, bleached, mercerised or coloured cotton piece goods:
  - (i) in pieces stamped as of width 102 cm, or below, the stamped width shall not exceed the actual width at any point by more than 1.3 cm;
  - (ii) in pieces stamped as of width over 102 cm, and up to 152 cm, the stamped width

shall not exceed the actual width at any point by more than 1.25 percent of the stamped width of the piece;

more than 1.25 percent of the stamped width of the piece or 2.5 cm whichever is less.

- (iii) in pieces stamped as of width 152 cm and above, the stamped width shall not exceed the actual width at any point by

Provided that average width of the pieces in question shall not be less than the stamped width.

## ANNEX C

( Clause 6.1 )

### LIST OF MAJOR FLAWS

One or more ends missing in the body of the material throughout its length, more than three ends missing at a place and running over 60 cm, or prominently noticeable double end running throughout the piece.

Undressed snarls noticeable over a length exceeding 5 percent of the length of the piece.

Smash definitely rupturing the texture of the fabric.

Hole, cut or tear.

Reed marks prominently noticeable over a length exceeding 5 percent of the length of the piece.

Defective or damaged selvedge noticeable over a length exceeding 5 percent of the length of the piece.

Weft crack of two or more missing picks across the width of the fabric.

Warp of weft bar due to the difference in raw material, count, twist, lustre or spacing of adjacent groups of yarns ( starting mark ).

More than two adjacent ends running parallel, broken or missing and extending beyond 10 cm.

Noticeable warp or weft float in the body of the fabric.

Noticeable oil or other stain in the fabric.

Oily weft in the fabric.

Prominently noticeable slub.

Gout due to foreign matter usually lint or waste woven into the fabric.

Prominent selvedge defect.

Fuzzy appearance.

Significant shading or listing in fabric having a gradual change in tone or depth of shade of fabric ( excluding selvedge or border running parallel to the selvedge ).

Coloured flecks.

Blurred or dark patch.

Patchy, streaky or uneven dyeing.

Dye bar.

## ANNEX D

( Table 1 )

### METHOD FOR DETERMINATION OF MASS OF FABRIC

**D-1** Cut four specimens of 100 mm × 100 mm from a sample. Condition all the specimens in the desiccator charged with saturated solution of sodium nitrate at  $27^{\circ}\text{C} \pm 2^{\circ}\text{C}$  for a period of 24 hours. Remove all the specimens from the

desiccator and immediately determine their collective mass in weighing balance to the nearest milligram.

**D-2** Calculate mass of fabric in  $\text{g/m}^2$ .

### **Standard Mark**

The use of the Standard Mark is governed by the provisions of the *Bureau of Indian Standards Act, 1986* and the Rules and Regulations made thereunder. The Standard Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well defined system of inspection, testing and quality control which is devised and supervised by BIS and operated by the producer. Standard marked products are also continuously checked by BIS for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

## Bureau of Indian Standards

BIS is a statutory institution established under the *Bureau of Indian Standards Act, 1986* to promote harmonious development of the activities of standardization, marking and quality certification of goods and attending to connected matters in the country.

### Copyright

BIS has the copyright of all its publications. No part of these publications may be reproduced in any form without the prior permission in writing of BIS. This does not preclude the free use, in the course of implementing the standard, of necessary details, such as symbols and sizes, type or grade designations. Enquiries relating to copyright be addressed to the Director (Publications), BIS.

### Review of Indian Standards

Amendments are issued to standards as the need arises on the basis of comments. Standards are also reviewed periodically; a standard along with amendments is reaffirmed when such review indicates that no changes are needed; if the review indicates that changes are needed, it is taken up for revision. Users of Indian Standards should ascertain that they are in possession of the latest amendments or edition by referring to the latest issue of 'BIS Handbook' and 'Standards Monthly Additions'. Comments on this Indian Standard may be sent to BIS giving the following reference:

Doc : TX 08 ( 2559 )

### Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

## BUREAU OF INDIAN STANDARDS

### Headquarters:

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 110002

Telephones : 331 01 31, 331 13 75

Telegrams : Manaksanstha  
( Common to all Offices )

### Regional Offices:

Telephone

Central : Manak Bhavan, 9 Bahadur Shah Zafar Marg  
NEW DELHI 110002

{ 331 01 31  
{ 331 13 75

Eastern : 1/14 C.I.T. Scheme VII M, V.I.P. Road, Maniktola  
CALCUTTA 700054

{ 37 84 99, 37 85 61  
{ 37 86 26, 37 86 62

Northern : SCO 445-446, Sector 35-C, CHANDIGARH 160036

{ 53 38 43, 53 16 40  
{ 53 23 84

Southern : C.I.T. Campus, IV Cross Road, MADRAS 600113

{ 235 02 16, 235 04 42  
{ 235 15 19, 235 23 15

Western : Manakalaya, E9 MIDC, Marol, Andheri ( East )  
BOMBAY 430093

{ 632 92 95, 632 78 58  
{ 632 78 91, 632 78 92

Branches : AHMADABAD. BANGALORE. BHOPAL. BHUBANESHWAR. COIMBATORE.  
FARIDABAD. GHAZIABAD. GUWAHATI. HYDERABAD. JAIPUR. KANPUR.  
LUCKNOW. PATNA. THIRUVANANTHAPURAM.